

## ABSTRACT

Discloses is a metal-based resistance heat-generation element. The element comprises a core made of a platinum group metal or refractory metal, and a coating film formed on the core.

5 The coating film has at least two layers including a core-side inner layer of a Re-Cr based  $\sigma$  (sigma) phase and a surface-side outermost layer of an aluminide or silicide. Alternatively, the element may comprise a core made of an alloy containing a platinum group metal or refractory metal and Re and Cr diffused therein, and a coating film formed on the core. The coating film has at least one layer including an aluminide or silicide layer.